being well outside the vallum except on the west side, where a right of way interferes with the true circle. The next work undertaken—the most difficult and important of the whole—was the raising of the "leaning stone"—the largest monolith in England except Cleopatra's needle—to an upright position. This stone formed one of the uprights of the trilithon the fall of which was said to have been caused by the digging and researches of the Duke of Buckingham in 1620. The horizontal and the other upright (the latter broken in two pieces) now lie prostrate across the altar stone.

The great stone leaned considerably towards the N.E. and appeared to rest upon (actually touching at one point) a beautiful little pillar stone of syenite, the danger being that in some storm, especially after a heavy fall of snow and sudden thaw, the great stone would break in three pieces (having three veins) in falling, and

also crush the smaller stone beneath it.

That a forward movement was continually taking place is shown by observations taken by Mr. Flinders Petrie some years ago. It then leaned at an angle of 62, which has been increased to one of 65 degrees lately. The work of the raising of the stone was begun on August 18 and finished September 25, and was under the direct supervision of Dr. Gowland, Mr. Detmar Blow, architect, and his assistant Mr. Stallybrass, and Mr. Carruthers, engineer. The first thing done was to make a fitting to the stone of a strong timber cradle so as to protect it from injury by the immense iron chains and ropes placed round it, these being attached to winches worked by men, so that the stone was actually "wound up," so to speak, into an upright position. Hydraulic jacks were also used. The whole thing was most carefully and slowly done, and devotedly watched over by workers. A rectangular excavation was made in front of the stone, a square excavation at the back. A frame of wood with numbers at equal distances apart was placed over the ground, which was excavated in sections, and the earth was most carefully sifted in layers through four grades of sieves in such a manner that the position of every object found could be recorded. The excavations round the base of the stone are now filled with concrete, and the large struts which uphold it will remain in their positions for six months, until the concrete be thoroughly

The objects found were one Roman coin at a shallow depth, and many chippings of both the blue and sarsen stones. Numerous flint axe heads and large stonehammers were also found at a depth of from two feet to three feet six inches underground; all tending to prove the great antiquity of Stonehenge—at least Neolithic, But all this will be discussed scientifically later on.

FLORENCE C. M. ANTROBUS.

## BIRD LIFE IN THE CANARIES AND SOUTH AFRICA.<sup>1</sup>

A LTHOUGH the author can scarcely be congratulated on his choice of a title, which in our opinion is too prolix and disconnected, he has succeeded in producing a very readable and interesting little work, based on a stay of six months in the Canaries and a sojourn of about the same duration in South Africa. Much of the contents is devoted to the ordinary incidents of travel, but the special feature of the book is formed by the excellent series of photographs of birds in their native haunts. As every one who has tried bird-photography is aware, but little can be done with the camera in this respect except during the nesting season; but the author's object has been, not to obtain pictures of the

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birds while actually sitting, but in their natural attitudes when in the neighbourhood of their nesting places. In this way it is possible to show birds in positions which could not be attempted in a drawing; and the value of such pictures for the guidance of the taxidermist who desires to be true to nature cannot be over-estimated. Apart from getting near enough to the bird without disturbing it, there are, however, difficulties connected with this branch of photography which can only be fully realised by those who have had practical experience.

The ideal way of showing a bird, as the author tells us, is perhaps to portray it amid its natural surroundings, but, with rare exceptions, this is unfortunately a practical impossibility in photography. The chief difficulty with which the photographer has to contend is the background-whether this should be in proper focus at the expense of the bird, or vice versa. In most of the photographs the background has been sacrificed; the birds standing out against a dark background, due to outof-focus distance behind them. This method has the advantage of bringing into relief the various markings and details of the plumage in a manner that would otherwise be impracticable; and, at any rate from the naturalist's point of view, the author is to be congratulated on the success of his method, many of the pictures being perfect representations of bird life.

In the section of the work dealing with the Canaries, a very considerable portion of the text, as well as some of the illustrations, are devoted to the description of the country, its inhabitants and its buildings, so that it is only here and there natural history subjects are discussed at any length. There are, however, several excellent photographs of the nests and eggs of birds—notably the stone-curlew and the Egyptian vulture; and we may call especial attention to the pictures of a malachite sun-bird and its nest (Plate xxii) as first-rate examples of what can be done by photography in portraying the smaller types

of bird-life.

In the second part of the volume, which treats of the author's experiences in South Africa, the bird-lover will find a very large amount of interesting matter. Personally, we have been much attracted by the author's account of his visit to Bird Island and St. Croix, two islets lying off Port Elizabeth. Apparently no one is allowed to visit these bird-haunted islets without a special permit, and an amusing story is told of the difficulty of obtaining such permission in this particular instance. Bird Island is the chosen resort of the Cape gannet, and the following account, illustrated by two photographs, gives a good idea of the numbers of these birds in the nesting season:—

"We rounded the north end of Bird Island first," writes Mr. Harris, "and then, close to the lighthouse, and covering quite an acre and a half of ground, were to be seen thousands of Cape gannets. The ground was white with the birds themselves, while above them in the air a kind of kaleidoscopic effect was produced by the ever-moving wings. Among a crowd of birds so thickly packed together as these gannets were, one naturally wonders if it is possible for them to keep to their own eggs; perhaps each bird recognises its own special place from the position of its neighbour. . . The men at the lighthouse say that these birds arrive in a mass at this, their breeding season, and that when the season is finished the island is untenanted as to bird life until the following year. The spectacle was not so imposing as that presented by the gannets on the Bass Rock in Scotland, where the birds, as seen from a distance, have the appearance of bees swarming round a hive. Here the birds were shown horizontally instead of vertically."

Penguins are likewise abundant on these islands, and the author was fortunate in obtaining two photographs of these birds, in one of which they are shown swimming, and in the other standing on the rocks.

Perhaps the most interesting chapter in the whole book

<sup>1 &</sup>quot;Essays and Photographs. Some Birds of the Canary Islands and South Africa." By H. E. Harris. Pp. xvi+212. 8vo. Illustrated. (London: Porter, 1901.)

is the one describing the nesting habits of the two species of sand-plover which frequent the shore on False Bay and in the neighbourhood of Port Elizabeth. The visitor unaccustomed to the ways of these birds always fails at first to discover their eggs, although he may be convinced that they are in his immediate vicinity.

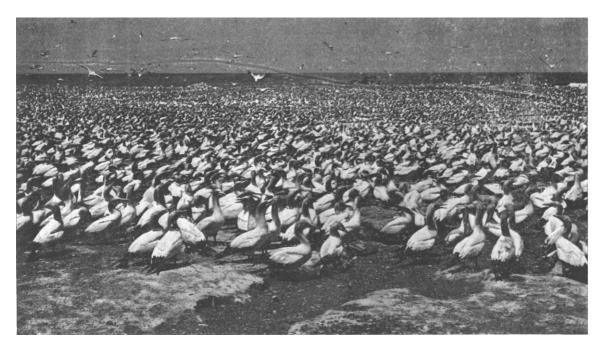
After one or two attempts, says the author, you retire and resolve to watch more carefully. "The bird soon returns to the same spot, shuffles for a second or two very quickly with its feet, and then sits down. This time you make no mistake about the exact place, and you locate the position of the bird with the aid of two little bits of herbage growing near; again you approach, the bird rises as before, and repeats the same performance, standing a little way off, and looking as though it would help you if it could, and if you would only tell it what you were looking for. The ground is quite undisturbed, and there is no sign of a nest or eggs; the little bits of driftwood and bark, though, which lie between your feet are loose, and

nomenclature, so that ornithologists may be satisfied that the various birds alluded to are correctly identified.

R. L.

## THE REPORT OF THE THOMPSON YATES LABORATORIES.

THE Thompson Yates Laboratories Report, lately published, edited by Profs. Rubert Boyce and C. S. Sherrington, is a worthy successor to the preceding volumes, which have previously been reviewed in these columns. The distribution of B. coli commune is the title of the first paper, by Miss Chick, who concludes that this organism is not so generally distributed as has been considered by some bacteriologists, and that its presence may be looked upon as useful evidence of recent fæcal contamination. Her experiments show the very low resistance which the B. coli can offer to unfavourable conditions, especially desiccation.



Cape Gannets on Bird Island.

the earth underneath them is loose also, and then you feel beneath the loose earth and there are two eggs!"

And yet it is difficult to account for this strange habit, since the eggs so closely resemble their surroundings that they would be passed unnoticed when lying on the bare ground. Often the nesting-site is in a locality much frequented both by men and cattle, and it is a marvel that all the eggs are not broken. On one occasion the author actually found an ox lying down on a nest whose situation was known to him; strange to say, although one egg was crushed, the other was intact. The proceedings of the parent bird while thus effectually prevented from obtaining access to her nest are described with some humour by the author.

Many other anecdotes might be culled from Mr. Harris's pages, but enough has been said to indicate the interesting character of his work and the large amount of information with regard to the habits of birds that it contains. The author has been fortunate in obtaining the assistance of Mr. Howard Saunders in revising the

Mr. E. E. Glynn has investigated the relation between the *Bacillus enteritidis sporogenes* of Klein and diarrhæa. He has isolated this micro-organism from normal dejecta, dust, air, milk, and sugar, and has tested the effects of cultures upon guinea-pigs and upon himself by ingestion without evil result. He agrees with Dr. Hewlett that the *Bacillus enteritidis sporogenes* is a ubiquitous organism, and that there is at present no satisfactory evidence that it is a cause of diarrhæa.

Mr. A. T. MacConkey gives further details of his bilesalt lactose Agar medium for the isolation of B. coli and B. typhosus, for which purpose it seems to be a valuable addition to the methods hitherto in use. Mr. MacConkey also publishes a note on flagella staining, Mr. K. W. Monsarrat describes a primary malignant growth of the kidney, and Dr. Christophers discusses the prevention of malaria in Tropical Africa.

Enlargement of the spleen has been relied upon by many as the test of the prevalence of malaria in a district. but Dr. Daniels concludes that the spleen-test may be

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